CLAIMS

1. A metal building, comprising:

a) a slab that supports a plurality of walls that are formed of generally vertically oriented metal panels, each wall having an outer surface and an inner surface, the metal panels including wall panels having opposing wall panel edge portions;

b) the metal panels including a plurality of metal corner panels having opposing corner edge portions that connect with a pair of wall panels at wall panel edge portions;

c) wherein the wall panel edge portions of one panel connecting with edge portions of two other metal panels;

d) each of the panels having flanged portions that extend toward each other;

e) connections that join panels together being defined by interlocking sections that are Z-shaped and that extend transversely with respect to the wall outer surface;

f) the wall inner surface being defined by a veneer that is connected to the metal panels at the flanged portions; and

g) a cover that attaches to the walls and shields at least part of the interior.

2. The metal building of claim 1 wherein at least one wall has a window, wherein a plurality of short wall panels are below the window.

3. The metal building of claim 1 wherein at least one wall has a door.

4. The metal building of claim 2 wherein the wall panels and the window each have a width, the window width being greater than the width of the plurality of short wall panels that are positioned below the window.

5. The metal building of claim 4 further comprising a truss formed of a plurality of short wall panel sections that are attached above and below to truss beams, the truss

having edge portions that connect to wall panel edge portions.

6. The metal building of claim 2 wherein the wall panels and the window each have a width, the door width being greater than the width of a plurality of the wall panels that are positioned above the door.

7. The metal building of claim 5 further comprising a pair of vertical columns that support the truss at positions on opposing sides of the window, wherein the distance between the columns is greater than the window width.

8. The metal building of claim 7 wherein each column supports an end portion of the truss.

9. The metal building of claim 1 wherein each column is comprised of a pair of sections that are movable relative to one another.

10. The metal building of claim 1 wherein the building has at least one window and at least one door.

11. The metal building of claim 10 wherein the wall panels and the window each have a width, the window width being greater than the combined width of a plurality of the wall panels.

12. The metal building of claim 11 further comprising a truss formed of a plurality of short wall panel sections that are attached above and below to truss beams, the truss having edge portions that connect to wall panel edge portions.

13. The metal building of claim 12 further comprising a pair of vertical columns that support the truss at positions on opposing sides of the window wherein the distance between the columns is greater than the window width.

14. The metal building of claim 13 wherein each column extends downwardly from a position next to a side of the truss.

15. The metal building of claim 1 wherein each corner has corner panel sections forming an angle of about 90 degrees, the panel sections having different dimensions.

16. The metal building of claim 1 wherein a plurality of the metal panels are clad with insulation.

17. The metal building of claim 1 wherein a plurality of the metal panels are clad with insulation fastened to the metal panel with nails.

18. A metal building, comprising:

a) an underlying support;

b) a plurality of metal walls providing an outer wall surface;

c) the walls supporting a roof;

d) the metal walls connecting at corners;

e) each metal wall being comprised of a plurality of metallic wall panels connected together at panel joints, each wall panel having a first section with opposing end portions and second and third sections attached respectively to the first section end portions;

f) each of said second and third sections extending away from the first section and having a Z-shaped portion;

g) each Z-shaped section having a free end portion that carries at least one flange, the flanges of the Z sections of a wall panel extending toward each other; and

h) at least one corner having a Z-shaped portion that interlocks with a Z-shaped portion of a wall panel.

19. The metal building of claim 16 where each corner has two Z-shaped portions, each interlocking with a Z-shaped portion of a wall panel.

20. The metal building of claim 18 further comprising a header that forms an interface between the wall panels and the underlying support, the header comprised of a plurality of flanges intersecting at generally right angles, one flange extending upwardly.

21. The metal building of claim 20 wherein a pair of

said flanges extend upwardly.

22. The metal building of claim 20 wherein the header has a slotted portion.

23. The metal building of claim 22 wherein the slotted portion includes a slot in the upwardly extending flange.

24. The metal building of claim 22 wherein the header has multiple slotted portions.

25. The metal building of claim 22 wherein a panel joint is positioned next to a slotted portion.

26. The metal building of claim 25 wherein interlocking panels extend through slotted portions of the header at a joint.

27. The metal building of claim 18 wherein one of said second and third sections has five flat sections.

28. The metal building of claim 18 wherein one of said second and third sections has five flanged sections.

29. The metal building of claim 18 wherein one of said second and third sections has five intersecting sections.

30. The metal building of claim 18 wherein both of said second and third sections has five flat sections.

31. The metal building of claim 18 further comprising a header connected to the top of the wall panels.

32. The metal building of claim 31 where each corner has two Z-shaped portions, each interlocking with a Z-shaped portion of a wall panel.

33. The metal building of claim 31 wherein a pair of said flanges extend upwardly.

34. The metal building of claim 18 wherein a plurality of the metal panels are clad with insulation.

35. The metal building of claim 18 wherein a plurality of the metal panels are clad with insulation fastened to the metal panel with nails.

36. A metal building, comprising:

a) an underlying support;

b) a plurality of metal walls providing an outer wall surface;

c) the walls supporting a roof;

d) the metal walls connecting at corners;

e) each metal wall being comprised of a plurality of metallic wall panels connected together at panel joints, each wall panel having a first section with opposing end portions and second and third sections attached respectively to the first section end portions;

f) each of said second and third sections extending away from the first section and having a Z-shaped portion;

g) each Z-shaped section having a free end portion that carries at least one flange, the flanges of the Z sections of a wall panel extending toward each other; and

h) at least one corner comprising a pair of vertically extended members of the metal outer wall surface, the other member not being part of the metal outer wall surface.

37. The metal building of claim 36 wherein at least one wall has a window.

38. The metal building of claim 36 wherein at least one wall has a door.

39. The metal building of claim 36 wherein the wall panels and the window each have a width, the window width being greater than the width of a plurality of the wall panels that are positioned below the window.

40. The metal building of claim 39 further comprising a truss formed of a plurality of short wall panel sections that are attached above and below to truss beams, the truss having edge portions that connect to wall panel edge portions.

41. The metal building of claim 37 wherein the wall panels and the window each have a width, the door width being greater than the width of a plurality of the wall

panels that are positioned above the door.

42. The metal building of claim 40 further comprising a pair of vertical columns that support the truss at positions on opposing sides of the window, wherein the distance between the columns is greater than the window width.

43. The metal building of claim 42 wherein each column supports an end portion of the truss.

44. The metal building of claim 36 wherein each column is comprised of a pair of sections that are movable relative to one another.

45. The metal building of claim 36 wherein the building has at least one window and at least one door.

46. The metal building of claim 45 wherein the wall panels and the window each have a width, the window width being greater than the combined width of a plurality of the wall panels.

47. The metal building of claim 46 further comprising a truss formed of a plurality of short wall panel sections that are attached above and below to truss beams, the truss having edge portions that connect to wall panel edge portions.

48. The metal building of claim 47 further comprising a pair of vertical columns that support the truss at positions on opposing sides of the window wherein the distance between the columns is greater than the window width.

49. The metal building of claim 48 wherein each column extends downwardly from a position next to a side of the truss.

50. The metal building of claim 36 wherein each corner has corner panel sections forming an angle of about 90 degrees, the panel sections having different dimensions.

51. The metal building of claim 36 wherein a plurality of the metal panels are clad with insulation.

52. The metal building of claim 36 wherein a plurality of the metal panels are clad with insulation fastened to the metal panel with nails.

53. The metal building of claim 51 wherein each wall panel has a void space in between the second and third sections and the insulation is positioned in the void space.

54. The metal building of claim 52 wherein each wall panel has a void space in between the second and third sections and the insulation is positioned in the void space.

55. The metal building of claim 47 wherein the insulation is attached to the first section of a wall panel.

56. The metal building of claim 48 wherein the insulation is attached to the first section of a wall panel.

57. The metal building of claim 49 wherein the insulation is attached to the first section of a wall panel.

58. The metal building of claim 16 wherein the insulation is a laminate that includes metallic and non-metallic portions.

59. The metal building of claim 17 wherein the insulation is a laminate that includes metallic and non-metallic portions.

60. The metal building of claim 1 wherein some of the panels have sections that are configured to inhibit heat transfer.

61. The metal building of claim 1 wherein some of the panels have sections that are slotted to inhibit heat transfer.

62. The metal building of claim 18 wherein some of the panels have sections that are configured to inhibit heat transfer.

63. The metal building of claim 36 wherein some of the panels have sections that are configured to inhibit heat transfer.

64. The metal building of claim 18 wherein some of the panels have sections that are slotted to inhibit heat transfer.

65. The metal building of claim 36 wherein some of the panels have sections that are slotted to inhibit heat transfer.

66. The metal building of claim 1 wherein the walls/panels have opposed end portions that attach to respective upper and lower longitudinal beams.

67. The metal building of claim 18 wherein the walls/panels have opposed end portions that attach to respective upper and lower longitudinal beams.

68. The metal building of claim 36 wherein the walls/panels have opposed end portions that attach to respective upper and lower longitudinal beams.

69. A metal building, comprising:

a) a slab that supports a plurality of walls that are formed of generally vertically oriented metal panels having upper and lower ends, an upper longitudinal beam connected to the upper ends of the panels and a lower longitudinal beam connected to the lower ends of the panels, the lower longitudinal beam having a web that rests upon the slab and an outer flange, each wall having an outer surface and an inner surface, the metal panels including wall panels having opposing wall panel edge portions;

b) the metal panels including a plurality of metal corner panels having opposing corner edge portions that connect with a pair of wall panels at wall panel edge portions;

c) wherein the wall panel edge portions of one panel connecting with edge portions of two other metal panels;

d) each of the panels having flanged portions that extend toward each other;

e) connections that join panels together being defined by interlocking sections that are Z-shaped and that extend transversely with respect to the wall outer surface;

f) the wall inner surface being defined by a veneer that is connected to the metal panels at the flanged portions; and

g) a cover that attaches to the walls and shields at least part of the interior;

h) slotted portions on the lower longitudinal beam that enable part of each wall panel to be positioned inside of the outer flange of the beam and part of each wall panel to be positioned on an outside surface of the outer flange of the longitudinal beam.

70. The metal building of claim 69 wherein at least one wall has a window.

71. The metal building of claim 69 wherein at least one wall has a door.

72. The metal building of claim 70 wherein the wall panels and the window each have a width, the window width being greater than the width of a plurality of the wall panels that are positioned below the window.

73. The metal building of claim 72 further comprising a truss formed of a plurality of short wall panel sections that are attached above and below to truss beams, the truss having edge portions that connect to wall panel edge portions.

74. The metal building of claim 70 wherein the wall panels and the window each have a width, the door width being greater than the width of a plurality of the wall panels that are positioned above the door.

75. The metal building of claim 74 further comprising a pair of vertical columns that support the truss at positions on opposing sides of the window, wherein the

distance between the columns is greater than the window width.

76. The metal building of claim 75 wherein each column supports an end portion of the truss.

77. The metal building of claim 69 wherein each column is comprised of a pair of sections that are movable relative to one another.

78. The metal building of claim 69 wherein the building has at least one window and at least one door.

79. The metal building of claim 78 wherein the wall panels and the window each have a width, the window width being greater than the combined width of a plurality of the wall panels.

80. The metal building of claim 79 further comprising a truss formed of a plurality of short wall panel sections that are attached above and below to truss beams, the truss having edge portions that connect to wall panel edge portions.

81. The metal building of claim 79 further comprising a pair of vertical columns that support the truss at positions on opposing sides of the window wherein the distance between the columns is greater than the window width.

82. The metal building of claim 80 wherein each column extends downwardly from a position next to a side of the truss.

83. The metal building of claim 68 wherein each corner has corner panel sections forming an angle of about 90 degrees, the panel sections having different dimensions.

84. The metal building of claim 68 wherein each slotted portion includes a slot on the web and a slot on the flange.

85. The metal building of claim 84 wherein each longitudinal beam includes a web and two spaced apart flanges.